

## ATTACHMENT D

### TABLE OF CONTENTS

List of Figures .....	D-ii
List of Tables .....	D-ii
Introduction .....	D-1
D-1 <u>Inspection Schedule</u> .....	D-1
D-1a <u>General Inspection Requirements</u> .....	D-3
D-1a(1) <u>Types of Problems</u> .....	D-3
D-1a(2) <u>Frequency of Inspections</u> .....	D-3
D-1a(3) <u>Monitoring Systems</u> .....	D-4
D-1b <u>Specific Process Inspection Requirements</u> .....	D-4
D-1b(1) <u>Container Inspection</u> .....	D-4
D-1b(2) <u>Miscellaneous Unit Inspection</u> .....	D-5
References .....	D-5

### List of Figures

Figure	Title
Figure D-1	Typical Inspection Checklist
Figure D-2	Typical Logbook Entry

### List of Tables

Table	Title
1	Table D-1
2	Table D-1a
3	Table D-2
4	
5	
6	
	Inspection Schedule/Procedures
	<u><b>RH TRU Mixed Waste Inspection Schedule/Procedures</b></u>
	Monitoring Schedule

1 D-1 Inspection Schedule  
2

3 The WIPP facility has developed and will maintain a series of written procedures that include all  
4 the detailed inspection procedures and forms necessary to comply with 20.4.1.500 NMAC  
5 (incorporating 40 CFR §264.15(b)), during the Disposal Phase. Tables D-1 and D-1a lists each  
6 item or system requiring inspection under these regulations, the inspection frequency, the  
7 organization responsible for the inspection, the applicable inspection procedure and what to  
8 look for during the inspection. 20.4.1.500 NMAC, (incorporating 40 CFR §§264.15(b), 264.174,  
9 and 264.602), list requirements that are applicable to the WIPP facility.

10  
11 Operational procedures detailing the inspections required under 20.4.1.500 NMAC  
12 (incorporating 40 CFR §§264.15(a) and (b)), are maintained in electronic format on the WIPP  
13 computer network, in the Operating Record and, as appropriate, in controlled document  
14 locations at the WIPP facility. Frequency of inspections is discussed in detail in Section D-1a(2).  
15 Inspections are conducted often enough to identify problems in time to correct them before they  
16 pose a threat to human health or the environment and are based on regulatory requirements.  
17 The operational procedures assign responsibility for conducting the inspection, the frequency of  
18 each inspection, the types of problems to be watched for, what to do if items fail inspection,  
19 directions on record keeping, and inspector signature, date, and time. The operational  
20 procedures are maintained at the WIPP facility. Tables D-1 and D-1a summarizes inspections,  
21 frequencies, responsible organizations, personnel making the inspection (by job title), and the  
22 types of anticipated problems as well as the references for the operational procedures.  
23 Inspection records are maintained at the WIPP site for three years by the responsible  
24 organization shown in Tables D-1 and D-1a.

25  
26 Waste handling equipment and area inspections are typically controlled through established  
27 procedures and the results are recorded in logbooks or on data sheets. Operators are trained to  
28 consult the logbook to identify the status of any piece of waste handling equipment prior to its  
29 use. Once a piece of equipment is identified to be operable, a preoperational inspection is  
30 initiated in accordance with the appropriate inspection procedure in Tables D-1, D-1a, or in  
31 operational procedures. Inspection results as described below are entered in the applicable  
32 logbook.

33  
34 Requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.15(d)), are met by the  
35 inspections for each item or system included in Tables D-1 and D-1a. The results of the  
36 inspections are maintained in the operating record for at least three years. The inspection logs  
37 or summary records include the date and time of inspection, the name of the inspector, a  
38 notation of the observations made, and the date and nature of any repairs or other remedial  
39 actions. Major pieces of waste handling equipment are inspected using proceduralized  
40 inspections. Current copies of inspections forms are maintained in the Operating Record. Non-

administrative changes (i.e., changes that affect the frequency or content of inspections) to inspection forms must be submitted to NMED in accordance with the appropriate portions of 20.4.1.900 NMAC (incorporating 40 CFR §270.42). The status of these pieces of equipment is maintained in an equipment logbook that is separate from the checklist. The logbook contains information regarding the condition of the equipment. Equipment operators are required, by the inspection checklist, to consult the logbook as the first activity in the inspection procedure. This logbook is maintained in the operating record. CH transuranic (TRU) mixed waste equipment that is controlled by a logbook includes the waste handling fork lifts, all waste handling cranes, the adjustable center of gravity lift fixture, the CH TRU transuranic (TRU) underground transporter, the conveyance loading car, the trailer jockey, and the push-pull attachment. RH TRU mixed waste equipment that is controlled by a logbook includes the 140/25-Ton RH Bay Overhead Bridge Crane, Cask Transfer Cars, 25-Ton Cask Unloading Room Crane, Transfer Cell Shuttle Car, RH Bay Cask Lifting Yolk, Facility Grapple, 6.25 Ton Overhead Hoist, Facility Cask Rotating Device, Hot Cell Overhead Powered Manipulator, 15-Ton Hot Cell Crane, Facility Cask Transfer Car, 41-Ton Forklift, Facility Cask, and Horizontal Emplacement and Retrieval Equipment. Inspections of the Cask Unloading Room, Hot Cell, Transfer Cell, Facility Cask Loading Room, RH Bay and radiation monitoring equipment will be recorded on data sheets. In addition to the inspections listed in Tables D-1 and D-1a, many pieces of equipment are subject to regular preventive maintenance. This includes more in-depth inspections of mechanical systems, load testing of lifting systems, calibration of measurement equipment and other actions as recommended by the equipment manufacturer or as required by DOE Orders. These preventive maintenance activities along with the inspections in Tables D-1 and D-1a make mechanical failure of waste handling equipment unlikely. The WIPP Safety Analysis Report (DOE, 1999-1995a) (DOE/WIPP-95-2065 Rev. 4) and the WIPP Remote-Handled Waste Preliminary Safety Analysis Report (RH PSAR) (DOE, 2000) contains the results of a systematic analysis of waste handling equipment and the hazards associated with potential mechanical failures. Equipment subject to failures that cannot practically be mitigated is retained for analysis and are is the basis for contingency planning. The inspection procedures maintained in the operating record for operational and preventive maintenance are implemented to assure the equipment is maintained. An example equipment inspection checklist and a typical log book form are shown as Figures D-1 and D-2. Actual checklists or forms are maintained within the Operating Record.

#### D-1a General Inspection Requirements

Tables D-1, D-1a and D-2 of this Permit Attachment list the major categories of monitoring equipment, safety and emergency systems, security devices, and operating and structural equipment that are important to the prevention or detection of, or the response to, environmental or human health hazards caused by hazardous waste. These systems may include numerous subsystems. These systems are inspected according to the frequency listed

1 in Tables D-1 and D-1a, a copy of which is maintained at the WIPP facility. The frequency of  
2 inspections is based on the nature of the equipment or the hazard and regulatory requirements.  
3 When in use, daily inspections are made of areas subject to spills, such as TRU mixed waste  
4 loading and unloading areas in the WHB Unit and staging areas in the WHB and TMF, looking  
5 for deterioration in structures, mechanical items, floor coatings, equipment, malfunctions, etc., in  
6 accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.15(b)(4)).

7  
8 D-1a(1) Types of Problems  
9

10 The inspections for the systems, equipment, structures, etc., listed in Tables D-1 and D-1a,  
11 include the types of problems (e.g., malfunctions, cracks in coatings or welds, and deterioration)  
12 to be looked for during the inspection of each item or system, if applicable, and are in  
13 compliance with 20.4.1.500 NMAC (incorporating 40 CFR §264.15(b)(3)).  
14

15 D-1a(2) Frequency of Inspections  
16

17 Tables D-1, D-1a and D-2 of this Permit Attachment list the inspection frequencies and  
18 monitoring schedule for equipment and systems subject to the 20.4.1 NMAC hazardous waste  
19 management requirements. The frequency is based on the rate of possible deterioration of the  
20 equipment and the probability of an environmental or human health incident if the deterioration  
21 or malfunction, or any operator error, goes undetected between inspections. Areas subject to  
22 spills, such as loading and unloading areas, are inspected daily when in use, consistent with the  
23 requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.15(b)(4)).  
24

25 When a RH TRU mixed waste container is present in the RH Complex, inspections are  
26 conducted visually and/or using a closed-circuit video camera in order to manage worker dose  
27 and to minimize occupational radiation exposures to as low as reasonably achievable (ALARA).  
28 More extensive inspections of these areas are performed at least annually during routine  
29 maintenance periods and when RH TRU mixed waste is not present.  
30

31 D-1b(1) Container Inspection  
32

33 Containers are used to manage TRU mixed waste at the WIPP facility. These containers are  
34 described in Permit Module III. Off-site CH TRU mixed waste will arrive in 55-gallon drums  
35 arranged as seven (7)-packs, as 85-gallon drums as 4-packs, as 100-gallon drums as three-  
36 packs, as Ten Drum Overpacks (**TDOP**), or as Standard Waste Boxes (**SWB**). The waste  
37 containers will be visually inspected to ensure that the waste containers are in good condition  
38 and that there are no signs that a release has occurred. This visual inspection shall not include  
39 the center drums of 7-packs and waste containers positioned such that visual observation is  
40 precluded due to the arrangement of waste assemblies on the facility pallets. If CH TRU mixed

1 waste handling operations should stop for any reason with containers located on the TRUPACT-  
2 ~~II Unloading Dock~~ (TRUDOCK storage area Staging Area of the WHB Unit) in the Contact-  
3 Handled Packages, primary waste container inspections could not be accomplished until the  
4 containers of waste are removed from the shipping containers.  
5

6 RH TRU mixed waste will arrive in containers inside Nuclear Regulatory Commission (NRC)-  
7 certified casks designed to provide shielding and facilitate safe handling. Canisters, will be  
8 loaded singly into an RH-TRU 72-B cask. Drums will be loaded into a CNS 10-160B cask. The  
9 cask will be visually inspected upon arrival. Because RH TRU mixed waste is held in the  
10 Parking Area Staging Area or stored in the Parking Area Unit in sealed casks, there are no  
11 additional requirements for engineered secondary containment systems. Following removal of  
12 the canisters and drums, the interior of the cask will be inspected and surveyed for evidence of  
13 contamination that may have occurred during transport.  
14

15 RH TRU mixed waste is handled and stored in the RH Complex of the WHB. The RH Complex  
16 includes the following: RH Bay, the Cask Unloading Room, the Hot Cell, the Transfer Cell, and  
17 the Facility Cask Loading Room. As RH TRU mixed waste is held in canisters within a canister  
18 rack the physical inspection of the drum or canister is not possible. Inspections of RH TRU  
19 mixed waste in these areas occurs remotely via closed-circuit camera a minimum of once  
20 weekly when stored waste is present. Because RH TRU mixed waste is stored in NRC-certified  
21 casks in the RH Bay, Facility Cask Loading Room and Cask Unloading Room, inspections in  
22 these areas focus on the inventory and integrity of the casks. There are no additional  
23 requirements for engineered secondary containment systems. However, the floors in the RH  
24 Complex (including the RH Bay, Facility Cask Loading Room and Cask Unloading Room) are  
25 coated concrete and during normal operations (i.e., when waste is present), the floor of the RH  
26 Complex is inspected visually or by using close-circuit cameras on a weekly basis to verify that  
27 it is in good condition and free of obvious cracks and gaps.

28 Inspections of RH TRU mixed waste containers stored in the Hot Cell and Transfer Cell are  
29 conducted using remotely operated cameras. RH TRU mixed waste in the Hot Cell is stored in  
30 either drums or canisters. The containers in the Hot Cell are inspected to ensure that they are in  
31 acceptable condition. RH TRU mixed waste in the Transfer Cell is stored in the RH-TRU 72-B  
32 cask or shielded insert; therefore, inspections in this area focus on the integrity of the cask or  
33 shielded insert. RH TRU mixed waste in the Facility Cask Loading Room is stored in the facility  
34 cask; therefore, inspections in this area focus on the integrity of the facility cask.  
35

36 Inspections will be conducted in the Parking Area Unit and Parking Area Staging Area at a  
37 frequency not less than once weekly when waste is present. These inspections are applicable  
38 to loaded, ~~and stored~~ Contact- or Remote-Handled Packages. The perimeter fence located at  
39 the lateral limit of the Parking Area Unit, coupled with personnel access restrictions into the

WHB Unit, will provide the needed security. The perimeter fence and the southern border of the WHB shall mark the lateral limit of the Parking Area Unit. Radiologically controlled areas can be established temporarily with barricades. More permanent structures can be installed. The western boundary can be established with temporary barricades since this area is within the perimeter fence. Access to radiologically controlled areas will only be permitted to personnel who have completed General Employee Radiological Training (GERT), a program defined by the Permittees, or escorted by personnel who have completed GERT. This program ensures that personnel have adequate knowledge to understand radiological posting they may encounter at the WIPP site. The fence of the Radiologically Controlled Area, south from the WHB airlocks was moved to provide more maneuvering space for the trucks delivering waste. Since TRU mixed waste to be staged in the Parking Area Staging Area or stored in the Parking Area Unit will be in sealed Contact- or Remote-Handled Packages, there will be no additional requirements for engineered secondary containment systems. Inspections of the Contact- or Remote-Handled Packages staged in the Parking Area Staging Area or stored in the Parking Area Unit shall be conducted at a frequency no less than once weekly and will focus on the inventory and integrity of the shipping containers and the spacing between trailers carrying the Contact- or Remote-Handled Packages. This spacing will be maintained at a minimum of four feet.

Container inspections will be included as part of the surface TRU mixed waste handling areas (i.e. Parking Area Unit and Staging Area and WHB Unit and Staging Areas, and TMF Staging Area) inspections described in Tables D-1 and D-1a. These inspections will also include the Derived Waste Storage Area of the WHB Unit and RH Complex. The Derived Waste Storage Area will consist of containers of 55 or 85-gallon drums or SWBs for CH TRU mixed waste and 55-gallon drums for RH TRU mixed waste areas. The total storage volume of this area is up to 66.3 cubic feet (1.88 cubic meters). A Satellite accumulation area (SAA) may be required in an area adjacent to the TRUDOCKs for CH TRU mixed waste. A SAA may also be required in the RH Bay and Hot Cell for RH TRU mixed waste. These SAAs will be set up on an as needed basis at or near the point of generation and the derived waste will be discarded into the active derived waste container. All SAAs will be inspected in accordance with 20.4.1.300 NMAC (incorporating 40 CFR §262.34).

#### References

DOE, 1997-1999. "WIPP Safety Analysis Report," DOE/WIPP-95-2065. Rev. 24,

U.S. Department of Energy, Washington, D.C., March 1997-DOE, 2000. WIPP Remote-Handled Waste Preliminary Safety Analysis (RH PSAR)

#### TABLE D-1 (CONTINUED)

**INSPECTION SCHEDULE/PROCEDURES NOTES**

- a Inspection may be accomplished as part of or in addition to regularly scheduled preventive maintenance inspections for each item or system. Certain structural systems of the WHB, Waist Hoist and Station A are also subject to inspection following severe natural events including earthquakes, tornados, and severe storms. Structural systems include columns, beams, girders, anchor bolts and concrete walls.
- b Deterioration includes: obvious cracks, erosion, salt build-up, damage, corrosion, loose or missing parts, malfunctions, and structural deterioration.
- c "Preoperational" signifies that inspections are required prior to the first use during a calendar day. For calendar days in which the equipment is not in use, no inspections are required. For an area this includes: area is clean and free of obstructions (for emergency equipment); adequate aisle space; emergency and communications equipment is readily available, properly located and sign-posted, visible, and operational. For equipment, this includes: checking fluid levels, pressures, valve and switch positions, battery charge levels, pressures, general cleanliness, and that all functional components and emergency equipment is present and operational.
- e These weekly inspections apply to container staging and storage areas when containers of waste are present for a week or more.
- g In addition, the water tank levels are maintained by the CMR and level readouts are available at any time.
- h This organization is responsible for obtaining licenses for radios and frequency assignments. They do periodic checks of frequencies and handle repairs which are performed by a vendor.
- i Radios are not routinely "inspected." They are operated daily and many are used in day-to-day operations. They are used until they fail, at which time they are replaced and repaired. Radios are used routinely by Emergency Services, Security, Environmental Monitoring, and Facility Operations.
- j Fire extinguisher inspection is paperless. Information is recorded into a database using barcodes. The database is then printed out.
- k Surface CH TRU mixed waste handling areas include the Parking Area Unit, the WHB unit, Parking Area Staging Area, WHB Staging Area, TRUDOCK Staging Area, TMF Staging Area, Room 108 and Airlock 107 Staging Areas and unloading areas.
- l No log forms are used for daily readings. However, readings that are out of tolerance are reported to the CMR and logged by CMR operator. Inspection includes daily functional checks of portable equipment.
- m Mechanical Operability means that the equipment has been checked and is operating in accordance with site safety requirements (e.g. proper fluid levels and tire pressure; functioning lights, alarms, sirens, and power/battery units; and belts, cables, nuts/bolts,



1 and gears in good condition), as appropriate.

2 <sup>n</sup> Required Equipment means that the equipment identified in Table F-6 is available and  
3 usable (i.e. not expired/depleted and works as designed).

4  
5 <sup>\*</sup> Positions are not considered RCRA positions (i.e., personnel do not manage TRU mixed  
6 waste).  
7



Waste Isolation Pilot Plant  
Class 3 Permit Modification Request  
June 2005

Table D-1a  
RH TRU Mixed Waste Inspection Schedule/Procedures

<u>System/ Equipment Name</u>	<u>Responsible Organization</u>	<u>Inspection<sup>a</sup> Frequency and Job Title of Personnel Normally Making Inspection</u>	<u>Procedure Number (Latest Revision)</u>	<u>Inspection Criteria</u>		
				<u>Deterioration<sup>b</sup></u>	<u>Leaks/ Spills</u>	<u>Other</u>
<u>Cask Transfer Car(s)</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e</sub> See list 1</u>	<u>WP05-WH1701 PM041186 (Semi-Annual)</u>	<u>Yes</u>	<u>NA</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication</u>
<u>RH Bay Overhead Bridge Crane</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e</sub> See list 1</u>	<u>WP05-WH1741 PM041232 (Quarterly &amp; Annual) PM041117 (Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication</u>
<u>Facility Cask</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f</sub> See list 1</u>	<u>WP05-WH1753 PM041201 (Annual) PM041203 (Annual)</u>	<u>Yes</u>	<u>NA</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication. Electrical PM.</u>

Waste Isolation Pilot Plant  
Class 3 Permit Modification Request  
June 2005

Table D-1a  
RH TRU Mixed Waste Inspection Schedule/Procedures

	<u>System/ Equipment Name</u>	<u>Responsible Organization</u>	<u>Inspection<sup>a</sup> Frequency and Job Title of Personnel Normally Making Inspection</u>	<u>Procedure Number (Latest Revision)</u>	<u>Inspection Criteria</u>		
					<u>Deterioration<sup>b</sup></u>	<u>Leaks/ Spills</u>	<u>Other</u>
1 2	<u>RH Bay Cask Lifting Yoke</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> See list 1</u>	<u>WP05-WH1741 PM041233 (Annual)</u>	<u>Yes</u>	<u>NA</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication</u>
3 4	<u>Facility Cask Transfer Car</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f</sub> See list 1</u>	<u>WP05-WH1704 PM041186 (Quarterly) PM041195 (Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication Electrical Inspection</u>
5 6 7	<u>Facility Cask Rotating Device</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f</sub> See list 1</u>	<u>WP05-WH1713 PM041175 (Annual) PM041176 (Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication Electrical Inspection</u>

Waste Isolation Pilot Plant  
Class 3 Permit Modification Request  
June 2005

Table D-1a  
RH TRU Mixed Waste Inspection Schedule/Procedures

	<u>System/ Equipment Name</u>	<u>Responsible Organization</u>	<u>Inspection<sup>a</sup> Frequency and Job Title of Personnel Normally Making Inspection</u>	<u>Procedure Number (Latest Revision)</u>	<u>Inspection Criteria</u>		
					<u>Deterioration<sup>b</sup></u>	<u>Leaks/ Spills</u>	<u>Other</u>
1 2	<u>Facility Grapple</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f</sub> See list 1</u>	<u>WP05-WH1721 PM041172 (Quarterly) PM041177 (Annual)</u>	<u>Yes</u>	<u>NA</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear. Non- Destructive Examination</u>
3	<u>6.25-Ton Hoist</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f</sub> See list 1</u>	<u>WP05-WH1721 PM041173 (Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication</u>
4 5	<u>Transfer Cell Shuttle Car</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f</sub> See list 1</u>	<u>WP05-WH1705 PM041184 (Semi-Annual) PM041222 (Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication. Electrical Inspection.</u>

Waste Isolation Pilot Plant  
Class 3 Permit Modification Request  
June 2005

Table D-1a  
RH TRU Mixed Waste Inspection Schedule/Procedures

<u>System/ Equipment Name</u>	<u>Responsible Organization</u>	<u>Inspection<sup>a</sup> Frequency and Job Title of Personnel Normally Making Inspection</u>	<u>Procedure Number (Latest Revision)</u>	<u>Inspection Criteria</u>		
				<u>Deterioration<sup>b</sup></u>	<u>Leaks/ Spills</u>	<u>Other</u>
<u>Cask Unloading Room</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> .d.e.f.h See list 1</u>	<u>WP05-WH1744</u>	<u>Yes</u>	<u>NA</u>	<u>Floor coating integrity</u>
<u>Hot Cell</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> .d.e.f.g.h See list 1</u>	<u>WP05-WH1744</u>	<u>Yes</u>	<u>NA</u>	<u>Floor coating integrity</u>
<u>Hot Cell Overhead Pow ered Manipulator</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> .d.e See list 1</u>	<u>WP05-WH1743</u> <u>PM041215</u> <u>(Annual)</u> <u>PM041216</u> <u>(Annual)</u> <u>IC411037</u> <u>(Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication. Electrical Inspection. Load Cell Calibration</u>
<u>Hot Cell Bridge Crane</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> .d.e See list 1</u>	<u>WP05-WH1742</u> <u>PM041217</u> <u>(Annual)</u> <u>PM041209</u> <u>(Annual)</u> <u>IC411038</u> <u>(Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- operational Checks and Operating Instructions. Mechanical Inspection for Wear and Lubrication. Electrical Inspection. Load Cell Calibration.</u>

Waste Isolation Pilot Plant  
Class 3 Permit Modification Request  
June 2005

Table D-1a  
RH TRU Mixed Waste Inspection Schedule/Procedures

<u>System/ Equipment Name</u>	<u>Responsible Organization</u>	<u>Inspection<sup>a</sup> Frequency and Job Title of Personnel Normally Making Inspection</u>	<u>Procedure Number (Latest Revision)</u>	<u>Inspection Criteria</u>		
				<u>Deterioration<sup>b</sup></u>	<u>Leaks/ Spills</u>	<u>Other</u>
<u>Transfer Cell</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f,h</sub> See list 1</u>	<u>WP05-WH1744</u>	<u>Yes</u>	<u>NA</u>	<u>Floor coating integrity</u>
<u>Facility Cask Loading Room</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e,f,h</sub> See list 1</u>	<u>WP05-WH1744</u>	<u>Yes</u>	<u>NA</u>	<u>Floor coating integrity</u>
<u>Closed Circuit Television Camera</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> See list 1</u>	<u>WP05-WH1757</u>	<u>NA</u>	<u>NA</u>	<u>Operability</u>
<u>Radiation Monitoring Equipment</u>	<u>Radiation Safety</u>	<u>Preoperational<sup>c</sup> <sub>d,e</sub> See list 2</u>	<u>WP12-HP1302</u> <u>PM411015</u> <u>IC411039 &amp;</u> <u>IC411040</u> <u>IC411036</u> <u>(Annual)</u>	<u>Yes</u>	<u>NA</u>	<u>Operability</u> <u>Checks,</u> <u>Functional</u> <u>Checks,</u> <u>Instrument</u> <u>calibrations,</u> <u>Flow</u> <u>Calibration,</u> <u>Efficiency</u> <u>Checks.</u>
<u>Cask Unloading Room Crane</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> <sub>d,e</sub> See list 1</u>	<u>WP05-WH1719</u> <u>PM041190</u> <u>(Quarterly &amp;</u> <u>Annual)</u> <u>PM041191</u> <u>(Annual)</u> <u>PM041192</u> <u>(Annual)</u> <u>IC411035</u> <u>(Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre-</u> <u>operational</u> <u>Checks and</u> <u>Operating</u> <u>Instructions.</u> <u>Mechanical</u> <u>Inspection for</u> <u>Wear and</u> <u>Lubrication.</u> <u>Electrical</u> <u>Inspection.</u> <u>Load Cell</u> <u>Calibration.</u>

Waste Isolation Pilot Plant  
Class 3 Permit Modification Request  
June 2005

Table D-1a  
RH TRU Mixed Waste Inspection Schedule/Procedures

<u>System/ Equipment Name</u>	<u>Responsible Organization</u>	<u>Inspection<sup>a</sup> Frequency and Job Title of Personnel Normally Making Inspection</u>	<u>Procedure Number (Latest Revision)</u>	<u>Inspection Criteria</u>		
				<u>Deterioration<sup>b</sup></u>	<u>Leaks/ Spills</u>	<u>Other</u>
<u>Horizontal Emplacement and Retrieval Equipment</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> See list 1</u>	<u>WP05-WH1700 PM052010 (Monthly) PM052011 (Annual) PM052013 PM052012 PM052014 (Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Assembly and Operating Instructions. Electrical Inspection. Position Transducer Calibration. Tilt Sensor Calibration.</u>
<u>41-Ton Forklift</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> See list 1</u>	<u>WP05-WH1602 PM074061 PM052003 (Hours of Use) PM074027 (Quarterly) PM074029 &amp;PM074051 (Annual)</u>	<u>Yes</u>	<u>Yes</u>	<u>Pre- Operational Checks. PM performed every 100 hours of operation. every 500 hours of operation or every 5 Years. Quarterly Engine Emission Test. Annual Electrical Inspection. Annual NDE.</u>
<u>RH Bay</u>	<u>Waste Operations</u>	<u>Preoperational<sup>c</sup> See list 1</u>	<u>WP05-WH1744</u>	<u>Yes</u>	<u>NA</u>	<u>Floor coating integrity</u>

**RH TRU mixed waste Inspection Schedule Lists**

**List 1: Waste Operations**

**Manager, RH Waste Handling**

**Qualified TRU-Waste Handler, Level II or III**

**List 2: Radiation Safety**

**Radiological Control Technician**



**RH TRU mixed waste Inspections Schedule Notes**

- <sup>a</sup> Inspection may be accomplished as part of or in addition to regularly scheduled preventive maintenance inspections for each item or system. Certain structural systems of the WHB are also subject to inspection following severe natural events including earthquakes, tornados, and severe storms. Structural systems include columns, beams, girders, anchor bolts, and concrete walls.
- <sup>b</sup> Deterioration includes: obvious cracks, erosion, salt build-up, damage, corrosion, loose or missing parts, malfunctions, and structural deterioration.
- <sup>c</sup> "Preoperational" signifies that inspections are required prior to the waste handling evolution. (The evolution is considered to be from the receipt of a cask into the RH Bay through canister emplacement in the underground.) For an area, preoperational inspection includes: area is clean and free of obstructions (for emergency equipment); adequate aisle space; emergency and communications equipment is readily available, properly located and sign-posted, visible, and operational. For equipment, this includes: checking fluid levels, pressures, valve and switch positions, battery charge levels, pressures, general cleanliness, and that functional components and emergency equipment are present and operational. When the equipment is not in use, no inspections are required.
- <sup>d</sup> When equipment needs to be inspected while handling waste (i.e., during waste unloading or transfer operations), general cleanliness and functional components will be inspected to detect any problem that may harm human health or the environment. The inspection will verify that emergency equipment is present.
- <sup>e</sup> Inspection of RH TRU mixed waste equipment and areas in the RH Complex applies only after RH TRU mixed waste receipt begins.
- <sup>f</sup> The inspection/maintenance activities associated with these pieces of equipment are performed when the RH Complex is empty of RH TRU mixed waste. If contamination is present, a radiation work permit may be needed.
- <sup>g</sup> For the Hot Cell and Transfer Cell, if RH TRU mixed waste is present, camera inspections will be performed in lieu of physical inspection.
- <sup>h</sup> The integrity of the floor coating will be inspected weekly if RH TRU mixed waste is present.